

08/27/2009

Amendments to the Specification:

Please replace paragraph [0004] with the following rewritten paragraph:

[0004] The first object indicated above may be achieved according to a first aspect of this invention, which provides a method of operating a gas vane pump including (a) a housing, (b) a rotor rotatably disposed within the housing and cooperating with the housing to define a pump chamber having a dimension in a radial direction of the rotor, which dimension varies in a rotating direction of the rotor, (c) at least one vane portion held by the rotor movably relative to the rotor and dividing the pump chamber into a plurality of variable-volume chambers, and (d) a lubricant supply passage formed through the housing and the rotor, the lubricant supply passage being closed when the rotor is placed at an angular position relative to the housing, which angular position is outside a predetermined angular range, and opened for communication with an external lubricant supply source when the rotor is placed at an angular position within the predetermined angular range, the method being characterized in that the vane pump is operated so as to satisfy a condition that when the rotor is stopped at an angular position relative to the housing, which angular position is within the predetermined angular range, a mass of a lubricant remaining in a lowest portion of the pump chamber is divided into a first portion and a second portion, by an initial divider vane which is provided by one of the ~~plurality of vanes~~ at least one vane portion.

Please replace paragraph [0011] with the following rewritten paragraph:

[0011] The object indicated above may also be achieved according to a second aspect of the present invention, which provides a gas vane pump comprising: (a) a housing, (b) a rotor rotatably disposed within the housing and cooperating with the housing to define a pump chamber having a dimension in a radial direction of the rotor, which dimension varies in a rotating direction of the rotor, (c) at least one vane portion held by the rotor movably

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relative to the rotor and dividing the pump chamber into a plurality of variable-volume chambers, and (d) a lubricant supply passage formed through the housing and the rotor, the lubricant supply passage being closed when the rotor is placed at an angular position relative to the housing, which angular position is outside a predetermined angular range, and opened for communication with an external lubricant supply source when the rotor is placed at an angular position within the predetermined angular range, the gas vane pump being characterized in that a relative position between the lubricant supply passage in an open state thereof and an initial divider vane which is one of the ~~plurality of vanes~~ at least one vane portion is determined such that a point of contact of the initial divider vane with an inner circumferential surface of the housing when the rotor is stopped at an angular position relative to the housing, which angular position is in the middle of the predetermined angular range, is located at a lowest point of the pump chamber or at a position adjacent to this lowest point.

Please replace paragraph [0016] with the following rewritten paragraph:

[0016] (1) A method of operating a gas vane pump including (a) a housing, (b) a rotor rotatably disposed within the housing and cooperating with the housing to define a pump chamber having a dimension in a radial direction of the rotor, which dimension varies in a rotating direction of the rotor, (c) at least one vane portion held by the rotor movably relative to the rotor and dividing the pump chamber into a plurality of variable-volume chambers, and (d) a lubricant supply passage formed through the housing and the rotor, the lubricant supply passage being closed when the rotor is placed at an angular position relative to the housing, which angular position is outside a predetermined angular range, and opened for communication with an external lubricant supply source when the rotor is placed at an angular position within the predetermined angular range, the method being characterized in

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that the vane pump is operated so as to satisfy a condition that when the rotor is stopped at an angular position relative to the housing, which angular position is within the predetermined angular range, a mass of a lubricant remaining in a lowest portion of the pump chamber is divided into a first portion and a second portion by an initial divider vane which is provided by one of the ~~plurality of vanes~~ at least one vane portion.

Please replace paragraph [0020] with the following rewritten paragraph:

[0020] (4) A gas vane pump comprising: (a) a housing, (b) a rotor rotatably disposed within the housing and cooperating with the housing to define a pump chamber having a dimension in a radial direction of the rotor, which dimension varies in a rotating direction of the rotor, (c) at least one vane portion held by the rotor movably relative to the rotor and dividing the pump chamber into a plurality of variable-volume chambers, and (d) a lubricant supply passage formed through the housing and the rotor, the lubricant supply passage being closed when the rotor is placed at an angular position relative to the housing, which angular position is outside a predetermined angular range, and opened for communication with an external lubricant supply source when the rotor is placed at an angular position within the predetermined angular range, the gas vane pump being characterized in that a relative position between the lubricant supply passage in an open state thereof and an initial divider vane which is one of the ~~plurality of vanes~~ at least one vane portion is determined such that a point of contact of the initial divider vane with an inner circumferential surface of the housing when the rotor is stopped at an angular position relative to the housing, which angular position is in the middle of the predetermined angular range, is located at a lowest point of the pump chamber or at a position adjacent to this lowest point.

Please see the attached substitute Abstract.